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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,998	01/05/2005	Shigeki Kambara	3273-0196PUS1	5132
2292	7590	08/09/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			CHU, JOHN S Y	
			ART UNIT	PAPER NUMBER

1752

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/519,998

Applicant(s)

KAMBARA ET AL.

Examiner

John S. Chu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6 and 7 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is in response to the application filed January 5, 2005.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by SHIMA et al (2004/0048192 A1) or SOYANO et al (6,800,419 B2).

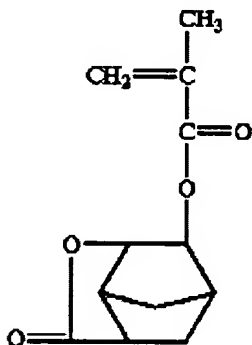
The claimed invention is drawn to the following:

1. A photoresist resin comprising at least a constitutional repeating unit A containing a group capable of partially leaving
by the action of an acid to thereby become soluble in an alkali;
and a constitutional repeating unit B containing an alicyclic skeleton having a polar group, wherein the resin has a weight-average molecular weight of 3000 to 15000 and has a content of polymer fractions each having a molecular weight
exceeding 40000 of 4 percent by weight or less of the total resin.

SHIMA et al discloses a radiation sensitive resin composition comprising a copolymer resin which is acid cleavable and a photoacid generator compound. Applicants are directed to Table 1 and Table 2 in paragraphs [0681] and [0682] which disclose the use of Synthesis Resins

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1-16 as disclosed in paragraphs [0625] – [0660] which meet the claimed photoresist resin having constitutional repeating units A and B. The monomer of interest in Synthesis Example 1 of SHIMA et al is to the following structure:

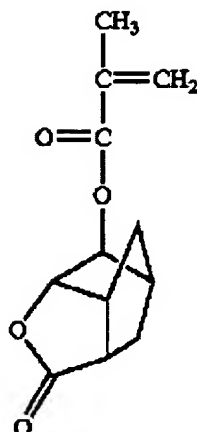


defined as compound (c) in the Synthesis example. This monomer meets claimed constitutional repeating unit B while the formula (1m) (paragraph [0034]) meets constitutional repeating unit A as claimed.

Applicants are further directed to paragraph [0308] which discloses the preferable Mw of the resins which is in a range of 5,000 – 30,000. This range implicitly teaches that Mw that are greater than 30,000 are not desired, thus teaching a 0 weight percent by weight of molecular fraction less than 40,000 as currently claimed.

The reference anticipates the claimed invention.

SOYANO et al discloses a radiation sensitive resin composition comprising a copolymer resin which is acid cleavable and a photoacid generator compound. Applicants are directed to column 35, line 65 – column 36, line 34 for a Resin Synthesis Example 1 which uses a monomer of 2-methyl-2-adamantyl methacrylate and a compound of formula (7) seen here:



this structure meets the claimed repeating unit B as recited being an alicyclic skeleton having a polar group.

Applicants are further directed to column 20, lines 9-16 which discloses the preferable Mw of the resins which is in a range of 5,000 – 30,000. This range implicitly teaches that Mw that are greater than 30,000 are not desired, thus teaching a 0 weight percent by weight of molecular fraction less than 40,000 as currently claimed.

The reference anticipates the claimed invention.

The arguments by applicant have been carefully considered, however the prior art as disclosed is still seen to meet the claimed invention wherein there is not disclosure of for fractions over 30,000 and is inferred to not be present thus giving a zero percent by weight of fractions exceeding 40000.

3. Claims 6 and 7 are seen as allowable over the prior art references of record wherein the cited references lack the claimed degree of dispersion defined in (ii).
4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Chu whose telephone number is (571) 272-1329. The examiner can normally be reached on Monday - Friday from 9:30 am to 6:00 pm.

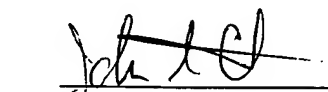
If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Cynthia Kelly, can be reached on (571) 272-1526

The fax phone number for the USPTO is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PMR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John S. Chu
Primary Examiner, Group 1700

J.Chu

February 5, 2006